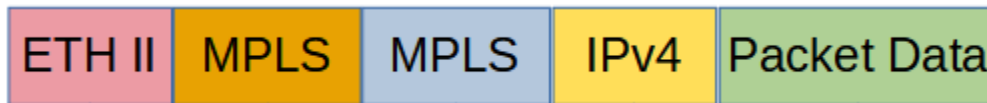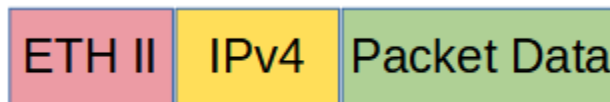When the MPLS label(s) are removed from a packet, the packet maintains the original L2, L3 and packet data as shown below.

MPLS Packet

MPLS Packet – Labels Removed

The Advanced Features MPLS abilities:

- Strip up to 9 MPLS labels

- Filter on up to 3 MPLS Labels

Stripping and/or filtering MPLS labels on packets involves two configuration procedures.

- Create a flow. A flow may be created to perform the following:

  Strip MPLS labels from packets based on IP Protocol number

  Strip MPLS labels based on filtering up to 3 MPLS Labels, 1st, 2nd and 3rd

  Filter MPLS packets based on filtering up to 3 MPLS Labels, 1st, 2nd and 3rd

  Filter MPLS packets based on IP Protocol

  Filter MPLS packets based on Ether Type

- Create a TAP Group

This document discusses the procedure to create MPLS flows. The procedure to create a TAP Group is discussed in the TAP Group Guide.

Create a Flow

1. Select TAP Management.

2. Select Flow.

3. Select + Add Flow.

   The Add Flow panel will appear.

Add Flow	✕
Flow Name	New Flow Name
Decap	off

✔ Add Flow   ✖ Close

4. Enter the Flow Name.

5. Select Add Flow.

   The flow will be displayed.

TAP Flow Statistics   ➕ Add Flow

#	Flow Name	Remark	Decap	Options
1	MPLS	N/A	Disable	➕ 🗑

6. Select the + in the Options column to define the attributes.

   The Add Flow Entry panel will be displayed.

The Add Flow Entry panel is divided into two sections, match rule and action.

   Match Rule Section

   - Defines whether the packets are permitted or denied

   - Determines the permitted or denied packet filter criteria

   - Determines which permitted packets will be modified by any action(s) selected and defined in the action section

   Action Section

   - The action section is used to define the modification(s) that will be performed on any packet(s) that is permitted by the match rule section

Strip MPLS Labels (IP Protocol)

This flow may be used to strip all of the MPLS labels from packets without specifying the number of MPLS labels or using filtering to determine which MPLS packets are affected.

Flow Match Options

1. Action   permit

2. IP Protocol Number   mpls

3. Mpls enable   enable

Flow Action Options

5. Strip-header   enable

6. Select OK.

7. Select the flow name to display the attributes.

> *The Flow Entry panel will be displayed*

MPLS		✕
#	**Flow Entry**	**Options**
1	sequence-num 10 permit mpls any strip-header	🗑

<div align="right">✖ Close</div>

> *Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.*

Strip MPLS Labels (Strip 1-9 Labels and Filter on 1ˢᵗ, 2ⁿᵈ and 3ʳᵈ)

This flow may be used to strip all of the MPLS labels from packets by specifying the packets that meet the number of MPLS labels and using filtering to determine which MPLS packets are affected.

Flow Match Options

1. Action   permit

2. IP Protocol Number   mpls

3. Mpls enable   enable

4. Number   Select the MPLS label number, 1-9. The MPLS labels will only be stripped from the packets that match the number selected. If 7 is selected, packets with 1-6, 8-9 MPLS labels will not be affected.

5. label1   any   If any is selected this flow will not use the 1st MPLS label as a filter option.

6. label1   number   If number is selected an option will appear to enter the matching MPLS 1st label.

7. label1_number   Enter the desired number. Range is 0 to 1048575.

8. label2   any   If any is selected this flow will not use the 2nd MPLS label as a filter option.

9. label2   number   If number is selected an option will appear to enter the matching MPLS 2nd label.

10. label2_number   Enter the desired number. Range is 0 to 1048575.

11. label3   any   If any is selected this flow will not use the 3rd MPLS label as a filter option.

12. label3   number   If number is selected an option will appear to enter the matching MPLS 3rd label.

13. label3_number   Enter the desired number. Range is 0 to 1048575.

Flow Action Options

14. Strip-header   enable

15. Select OK.

16. Select the flow name to display the attributes.

The Flow Entry panel will be displayed

MPLS		✕
#	**Flow Entry**	**Options**
1	sequence-num 10 permit mpls label-num 7 mpls-label1 1234 mpls-label2 2468 mpls-label3 3579 strip-header	🗑

✖ Close

Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.

Filter MPLS Packets (Filter on 1ˢᵗ, 2ⁿᵈ and 3ʳᵈ)

This flow may be used to filter MPLS packets based on the 1ˢᵗ, 2ⁿᵈ and 3ʳᵈ MPLS label number.

Flow Match Options

1. Action	permit
2. IP Protocol Number	mpls
3. Mpls enable	enable
4. Number	Select the MPLS label number, 1-9. The MPLS labels will only be stripped from the packets that match the number selected. If 7 is selected, packets with 1-6, 8-9 MPLS labels will not be affected.
5. label1	any If any is selected this flow will not use the 1ˢᵗ MPLS label as a filter option.
6. label1	number If number is selected an option will appear to enter the matching MPLS 1ˢᵗ label.
7. label1_number	Enter the desired number. Range is 0 to 1048575.
8. label2	any If any is selected this flow will not use the 2ⁿᵈ MPLS label as a filter option.
9. label2	number If number is selected an option will appear to enter the matching MPLS 2ⁿᵈ label.
10. label2_number	Enter the desired number. Range is 0 to 1048575.
11. label3	any If any is selected this flow will not use the 3ʳᵈ MPLS label as a filter option.
12. label3	number If number is selected an option will appear to enter the matching MPLS 3ʳᵈ label.
13. label3_number	Enter the desired number. Range is 0 to 1048575.

Flow Action Options

14. Select OK.

16. Select the flow name to display the attributes.

The Flow Entry panel will be displayed

#	Flow Entry	Options
	MPLS	✕
1	sequence-num 10 permit mpls label-num 7 mpls-label1 1234 mpls-label2 2468 mpls-label3 3579	🗑

✖ Close

Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.

Filter MPLS Packets (Filter on IP Protocol)

This flow may be used to filter MPLS packets based on IP Protocol only.

Flow Match Options

1. Action   permit

2. IP Protocol Number   mpls

3. Mpls enable   enable

Flow Action Options

14. Select OK.

16. Select the flow name to display the attributes.

The Flow Entry panel will be displayed

#	Flow Entry	Options
	MPLS	✕
1	sequence-num 10 permit mpls any	🗑

✖ Close

Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.

Filter MPLS Packets (Filter on Ether Type)

This flow may be used to filter MPLS packets based on Ether Type only.

Flow Match Options

1. Action   permit

2. IP Protocol Number   any

3. Ether Type   enable

4. Value   0x8847

5. Wildcard   0x0

Flow Action Options

14. Select OK.

16. Select the flow name to display the attributes.

> *The Flow Entry panel will be displayed*

MPLS		✕
#	**Flow Entry**	**Options**
1	sequence-num 10 permit any src-ip any dst-ip any ether-type 0x8847 0x0	🗑

<div align="right">✖ Close</div>

> *Additional entries may be created for the flow. Entries may be deleted by selecting the Trash Can. Entries may not be modified.*